

STATEMENT OF CONSIDERATION
Relating to 401 KAR 10:001
Not Amended After Comments

I. The public hearing on 401 KAR 10:001, 10:029, 10:030 and 10:031, scheduled for September 27, 2012, at 5 p.m. at 300 Fair Oaks Lane, Conference Room 301D, Frankfort, Kentucky, was held; several members of the public did attend this public hearing, including Mr. Hank Graddy (Sierra Club), Mindy Scott, (Northern Kentucky Sanitation District #1), Chad Harpole (Kentucky Chamber of Commerce), Lloyd Cress (Kentucky Coal Association), Larinda Tervelt and Annie Godfrey (U.S. EPA Region 4). Mr. Hank Graddy, (Cumberland Chapter of the Sierra Club), provided verbal comments. Written comments were also received regarding these administrative regulations.

II. The following people submitted written comments regarding this administrative regulation:

<u>Name and Title</u>	<u>Agency/Organization/Entity, Other</u>
Tom FitzGerald	Director, Kentucky Resources Council
Mr. Hank Graddy	Cumberland Chapter of the Sierra Club
C. Gregory Higdon	President and CEO, GEI Consultants
James D. Chaney	Chief Gov't. Affairs Officer, Kentucky League of Cities
Gay Dwyer	Senior VP, Gov't Affairs, Kentucky Retail Federation
Laura Knoth	Kentucky Corn Growers Association
Tim Joice	Water Policy Director, Kentucky Waterways Alliance
Larinda Tervelt	U.S. EPA Region 4
C. Gregory Higdon	Kentucky Association of Manufacturers
Chad Harpole	Director, Public Affairs, Kentucky Chamber of Commerce

III. The following people from the promulgating administrative body responded to the written comments:

<u>Name and Title</u>
Peter Goodmann, Assistant Director
Randall Payne, Environmental Scientist III

IV. Summary of Comments and Responses

401 KAR 10:001

(1)	Subject Matter:	Proposed nutrient criterion and eutrophication definition
	(a) Commenter(s):	USEPA, Region IV
	Comment:	EPA states that the amended narrative criterion along with the supporting amended eutrophication definition clarify the protection of the designated use. However, USEPA emphasizes the development and incorporation into water quality standards of numeric nutrient criteria. Numeric nutrient development plans should be updated.

(b) Response: The cabinet acknowledges EPA's comments with regard to clarification of the narrative nutrient standard. The cabinet also acknowledges EPA's request for an updated numeric nutrient criteria development plan and eventual incorporation of numeric nutrient criteria into water quality standards, though numeric nutrient development plans are not included in the proposed changes to 401 KAR 10:001 & 10:031, but are provided by the cabinet to EPA as part of its Clean Water Act §106 grant funding. The cabinet continues to work on developing scientifically defensible numeric nutrient criteria and believes it should continue with its approach to this complex criteria development effort. The cabinet is also developing a nutrient reduction strategy. This strategy is intended as a framework for improved nutrient management, collaborating with other agencies and stakeholders to determine where to invest the most appropriate and effective resources to reducing nutrient loadings to Kentucky's waterbodies. While the cabinet has a number of regulatory tools at its disposal, the cabinet's resources can best be employed by working with agencies and stakeholders to cooperating in our scientific efforts and understanding, focusing appropriate regulatory tools in areas where they can be most effective, coordinating and building upon existing educational, technical and financial assistance programs, using existing tools and available resources, and taking innovative approaches to improved nutrient management. This strategy is being built upon the principal of engaging all sectors and interested parties in order to achieve effective and sustained progress in the reduction of nutrient loading.

(2) Subject Matter: Opposes the proposed definition of eutrophication and the nutrient criterion

(a) Commenter(s): Hank Graddy, W.H. Graddy & Associates, Sierra Club; Tom Fitzgerald, Kentucky Resources Council; and Tim Joice, Kentucky Waterways Alliance

Comment: The commenters state that the proposed amendment to the nutrient criterion removes the anticipatory aspect of the standard in favor of a reactionary standard. It is noted that proposed eutrophication definition results in the nutrient criterion being reactionary and does not recognize that eutrophication is a process. Definitions on the USGS webpage offers language on the process of eutrophication. One commenter, Tim Joice, offers both a nutrient criterion and definition of eutrophication for the DOW to consider.

(b) Response: The cabinet's intent in proposing to amend the nutrient criterion, including amending the definition for "eutrophication" is to clarify the cabinet's approach to protection of the designated use from anthropogenically enhanced eutrophication. The cabinet has determined that the alternate language suggested by the

commenters, while legitimately defining the eutrophication process, does not outline the factors the cabinet considers in determining whether a waterbody is impaired by anthropogenic eutrophication. For example, these suggestions included language requiring sustained low dissolved oxygen levels exist for four consecutive quarters, along with diurnal increase of pH in the waterbody, which is not protective of the designated use and in fact indicates nonsupport of the designated use. Also, the proposed definition states what “signals” exist that indicate eutrophication and are relatively easy to measure. The “definition” is not the trigger for impairment due nutrient enrichment; rather the criterion is the trigger for determining impairment. Commenters also cite the “free-from” standards in 401 KAR 10:031 Section 2 and suggest that the definition would trump those general standards. The cabinet believes that the definition of eutrophication and the nutrient standard will work to protect the waterbodies from not meeting “free-from” with regards to manifestations resulting from nutrient-induced eutrophication. Commenters also have concerns that “nuisance” blooms, “proliferation” of nuisance plants and “severe, sudden” episodes of nutrient enrichment are vague and open to interpretation. “Nuisance” is a specific term regarding cultural eutrophic conditions related to aquatic plants and animals. The cabinet proposes to include “sudden, severe enrichment” recognizing an acute occurrence where a spill or release of nutrients may occur is addressed in the water quality standards. However, the cabinet has proposed to further amend the narrative nutrient standard in 401 KAR 10:031 Section 1 to “ensure that nutrients shall not be elevated in a surface water to a level that results in a eutrophication problem,” underscoring the cabinet’s intent that this criterion be protective.

- (3) Subject Matter: Asks the DOW promulgate numeric nutrient criteria for total phosphorus and total nitrogen for those regions of Kentucky where studies are complete.
- (a) Commenter(s): Hank Graddy, W.H. Graddy & Associates, Sierra Club
 Comment: The Sierra Club would like to know when the DOW will promulgate numeric nutrient criteria in areas he understands is possible.
- (b) Response: The cabinet is updating its numeric nutrient criteria development plan toward eventual incorporation of numeric nutrient criteria into water quality standards, though numeric nutrient development plans are not included in the proposed changes to 401 KAR 10:001 & 10:031, but are provided by the cabinet to EPA as part of its Clean Water Act §106 grant funding. The cabinet has not yet determined when it will have completed numeric nutrient criteria and implementation procedures that are ready to promulgate. The

cabinet continues to work on developing scientifically defensible numeric nutrient criteria and believes it should continue with its approach to this complex criteria development effort. The agency is discussing this issue both internally and with EPA. While data collection in some areas is considered complete, data analyses are ongoing. To date, some of the data results remain inconclusive regarding numeric thresholds linked to nutrient-induced response of the biological community. The cause-response analysis is the preferred path the cabinet is pursuing with its studies to set numeric criteria thresholds to protect aquatic habitat designated uses.

- (4) Subject Matter: Requests the DOW develop a statewide nutrient reduction strategy as described in the ORSANCO 2011 Annual Report, page 12

 (a) Commenter(s): Hank Graddy, W.H. Graddy & Associates, Sierra Club

 Comment: The Sierra Club requests that DOW develop statewide reduction strategy as described in the ORSANCO 2011 Annual Report, page 12.

 (b) Response: The cabinet acknowledges the commenter's request to develop a statewide nutrient reduction strategy. While a nutrient reduction strategy is not addressed in the proposed amendments to these regulations, the cabinet acknowledges that it is in the process of developing a statewide nutrient reduction strategy.

- (5) Subject Matter: Narrative nutrient criterion as related to permit limits

 (a) Commenter(s): Mr. Tim Joice, Kentucky Waterways Alliance

 Comment: The Kentucky Waterways Alliance suggests that the narrative nutrient criterion should be modified to allow sufficient nutrient limits on permits to prevent waters reaching the eutrophic condition.

 (b) Response: The cabinet's intent in proposing to amend the nutrient criterion, including amending the definition for "eutrophication" is to clarify the cabinet's approach to protection of the designated use from anthropogenically enhanced eutrophication. Discharge permit limits relating to nutrients may be imposed by the cabinet using the best professional judgment determination authorized in 401 KAR 5:080 Section 2 for discharges to receiving waters to protect these waters from eutrophication.

- (6) Subject Matter: Proposed eutrophication definition and nutrient criterion

 (a) Commenter(s): Gay Dwyer, Kentucky Retail Federation

 Comment: The Kentucky Retail Federation maintains that the proposed eutrophication definition, along with related changes in Chapter 10, effectively set numeric standards for nitrogen and phosphorus in Kentucky, particularly the proposed nutrient narrative criterion. If this regulatory package in fact set numeric nutrient standards and

- how were they derived? If numeric nutrient standards are not being proposed how do these changes impact development and use of the narrative standards current in place?
- (b) Response: The cabinet is not proposing numeric nutrient criteria in the proposed amendments to 401 KAR 10:001 or 401 KAR 10:031. The cabinet's intent in proposing to amend the nutrient criterion, including amending the definition for "eutrophication" is to clarify the cabinet's approach to protection of the designated use from anthropogenically enhanced eutrophication using a narrative criterion.
- (7) Subject Matter: Stringency of the proposed eutrophication definition and narrative nutrient criterion
- (a) Commenter(s): Mr. Chad Harpole, Kentucky Chamber of Commerce; Ms. Laura M. Knoth, Kentucky Corn Growers and Kentucky Small Grain Growers; and James D. Chaney, Kentucky League of Cities
- Comment: The commenters ask whether the proposed eutrophication definition and narrative nutrient criterion increase the stringency of the existing standard? Will the proposed criterion and definition result in all waters with algae blooms be considered impaired and 303(d) listed?
- (b) Response: The cabinet is not proposing to amend the regulations to change how it interprets the narrative nutrient criterion, but rather, the cabinet's intent in proposing to amend the nutrient criterion, including amending the definition for "eutrophication" is to clarify the cabinet's approach to protection of the designated use from anthropogenically enhanced eutrophication. The definition is outlines the criteria by which the cabinet considers whether a waterbody is meeting its designated use; unless an algal bloom is resulting in adverse effects on water chemistry and the indigenous aquatic community the cabinet would not consider the waterbody to be impaired and would not list the waterbody on the 303(d) list of impaired waters because of the algal bloom.
- (8) Subject Matter: Nutrient criterion and eutrophication definition as it relates to the concept of "problem"
- (a) Commenter(s): Mr. Chad Harpole, Kentucky Chamber of Commerce
- Comment: The Kentucky Chamber of Commerce offers revisions to the proposed criterion and definition tied to the concept of "problem."
- (b) Response: The cabinet acknowledges the commenter's concern that the nutrient criterion must be applied so as to preclude problems and concurs that the nutrient criterion should include language that precludes elevation of nutrients such that the nutrients result in a problematic eutrophic condition. Therefore the cabinet has proposed to further amend the Nutrient Criterion in 401 KAR

10:031 Section 1 to ensure that “nutrients shall not be elevated in a surface water to a level that results in a eutrophication problem.”

- (9) Subject Matter: Proposed nutrient criterion amendment
- (a) Commenter(s): C. Gregory Higdon, Kentucky Association of Manufacturers
- Comment: The Kentucky Association of Manufacturers notes that the loss of the concept of “problem” will result in triggering nutrient limits without a “eutrophication problem” having occurred. It is requested that “problem” be inserted in the revised nutrient criterion.
- (b) Response: The cabinet acknowledges the commenter’s concern that the nutrient criterion must be applied so as to preclude problems and concurs that the nutrient criterion should include language that precludes elevation of nutrients such that the nutrients result in a problematic eutrophic condition. Therefore the cabinet has proposed to further amend the Nutrient Criterion in 401 KAR 10:031 Section 1 to ensure that “nutrients shall not be elevated in a surface water to a level that results in a eutrophication problem.”

IV. Summary of the Statement of Consideration and Action Taken by Promulgating Administrative Body

The public hearing on 401 KAR 10:001 was convened; several members of the public attended this public hearing, and one individual provided verbal comments. Written comments were also received regarding this administrative regulation. The cabinet is not proposing amendments to this regulation in response to public comments.